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(WO/2002/081588) WATER-REPELLENT FILM AND METHOD FOR PREPARING THE SAME, AND INK-JET HEAD AND INK-JET TYPE RECORDING DEVICE USING THE SAME

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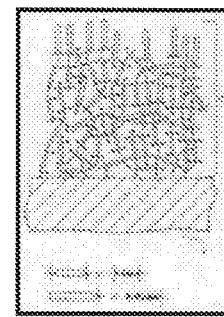
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Title: WATER-REPELLENT FILM AND METHOD FOR PREPARING THE SAME, AND INK-JET HEAD AND INK-JET TYPE RECORDING DEVICE USING THE SAME

Abstract: A water-repellent film (1) formed on a solid base material (2), characterized in that it comprises a molecule (A) having at least one siloxane bond (-Si-O-) at both terminals thereof and a hydrocarbon chain in the middle portion thereof and a molecule (B) having a fluorocarbon chain at one terminal and at least one siloxane bond (-Si-O-) at the other terminal, and the molecule (A) and the molecule (B) together form a polymer film; an ink-jet head and an ink-jet type recording device having the water-repellent film. The polymer film is covalently bound with the surface of the solid base material through a siloxane bonding (-Si-O-) and the surface is wholly covered by fluorocarbon chains exhibiting high water repellency, which prevents the entry of an alkaline ion. Accordingly, the water-repellent film does not suffer fracture even when it is contacted with an ink having alkalinity for a long period of time.



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